

AMENDMENTS TO THE CLAIMS:

Claims 1, 3-6, 8-9, and 11-27 are currently pending in the application, with claims 17-25 having been previously withdrawn.

Claims 1, 8, 11, 12 and 26 have been amended herein; claims 7 and 10 are hereby cancelled; and claim 27 is hereby added. No new matter has been added to the claims by way of the amendments (or by way of the new claim), and the amendments are made without prejudice or disclaimer. All claims currently pending and under consideration in the referenced application are shown below. Please enter these claims as amended and replace all prior versions and listings of claims in the application.

LISTING OF CLAIMS:

Claim 1 (currently amended). A solid freeform fabrication system for producing a three-dimensional object, comprising:

a printing carriage;

a dispensing system comprising a printhead, the dispensing system being adapted to separately dispense build material and support material, said dispensing system being an ink-jet printing dispensing system, ~~wherein the build material and the support material are adapted to contact one another at an interface after being dispensed;~~ and

a curing system adapted to harden the build material after being dispensed but before the support material is dispensed, ~~wherein mixing between the build material and the support material is inhibited at the interface;~~

a milling system adapted to mill the build material after being dispensed but before being hardened; and

wherein the printhead, the curing system, and the milling system are all supported by the printing carriage, and the milling system is positioned between the printhead and the curing system.

Claim 2 (cancelled).

Claim 3 (original). A system as in claim 1, wherein the dispensing system is adapted to dispense build material before support material.

Claim 4 (original). A system as in claim 1, wherein the dispensing system is adapted to dispense support material before build material.

Claim 5 (original). A system as in claim 1, wherein the curing system is also adapted to harden the support material after being dispensed.

Claim 6 (original). A system as in claim 1, wherein the build material is a UV curable material and the curing system is a UV curing system.

Claim 7 (cancelled).

Claim 8 (currently amended). A system as in claim[[ 7]]1, wherein the milling system is also adapted to mill the support material.

Claim 9 (original). A system as in claim 8, wherein the milling system provides a first waste stream for removing excess build material, and a second waste stream for removing support material.

Claim 10 (cancelled).

Claim 11 (currently amended). A system as in claim[[ 10]]1, wherein the printing carriage is configured for unidirectional printing.

Claim 12 (currently amended). A system as in claim[[ 10]]1, wherein the printing carriage is configured for bidirectional printing.

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Claim 13 (original). A system as in claim 1, further comprising a build platform configured to support the build material and the support material, said build platform also being configured to be lowered with respect to the dispensing system upon application of build material or support material.

Claim 14 (original). A system as in claim 1, further comprising a build platform configured to support the build material and the support material, said dispensing system being configured to be raised with respect to the build platform upon application of build material or support material.

Claim 15 (original). A system as in claim 1, further comprising a heating system configured to modify the temperature of at least one of the build material and the support material while within the dispensing system, thereby improving jettability of at least one of the build material and the support material.

Claim 16 (original). A system as in claim 1, wherein the dispensing system is further configured to dispense the build material at a height that is offset with respect to the support material.

Claim 17 (withdrawn). A method for producing a three-dimensional object, comprising: dispensing a build material; dispensing a support material, wherein the build material and the support material contact one another at an interface after being dispensed; and curing the build material after the build material is dispensed but before the support material is dispensed, wherein mixing between the build material and the support material is inhibited at the interface.

Claim 18 (withdrawn). A method as in claim 17, wherein the step of dispensing the build material is by ink-jet printing.

Claim 19 (withdrawn). A method as in claim 17, wherein the step of dispensing the support material is by ink-jet printing.

Claim 20 (withdrawn). A method as in claim 17, further comprising the step of curing the support material after the support material is dispensed but before additional build material is dispensed.

Claim 21 (withdrawn). A method as in claim 17, wherein the step of curing is by UV curing.

Claim 22 (withdrawn). A method as in claim 17, further comprising the step of milling the build material after being dispensed but before being cured.

Claim 23 (withdrawn). A method as in claim 17, further comprising the step of curing the support material in preparation for dispensing additional build material.

Claim 24 (withdrawn). A method as in claim 23, further comprising the step of milling the support material after being dispensed but before being cured.

Claim 25 (withdrawn). A method as in claim 23, further comprising the step of dispensing additional build material such that contact between the support material and the additional build material occurs at a second interface.

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Claim 26 (currently amended). A solid freeform fabrication system for producing a three-dimensional object, comprising:

dispensing means for separately dispensing build material and support material, said dispensing means being a ink-jet printing dispensing means, ~~wherein the build material and the support material are adapted to contact one another at an interface after being dispensed;~~

~~and~~ means for hardening the build material after being dispensed but before the support material is dispensed, ~~wherein mixing between the build material and the support material is inhibited at the interface;~~

milling means for milling the build material after being dispensed but before being hardened; and

wherein the dispensing means, the means for hardening the build material, and the milling means are all supported on a common carriage, and the milling means is positioned between the dispensing means and the means for hardening the build material.

Claim 27 (new). A system as in claim 1, wherein the printhead is in a staggered configuration thereby enabling deposition of the build material on a first row and deposition of the support material on a second at the same time.

(End of claims listing.)

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